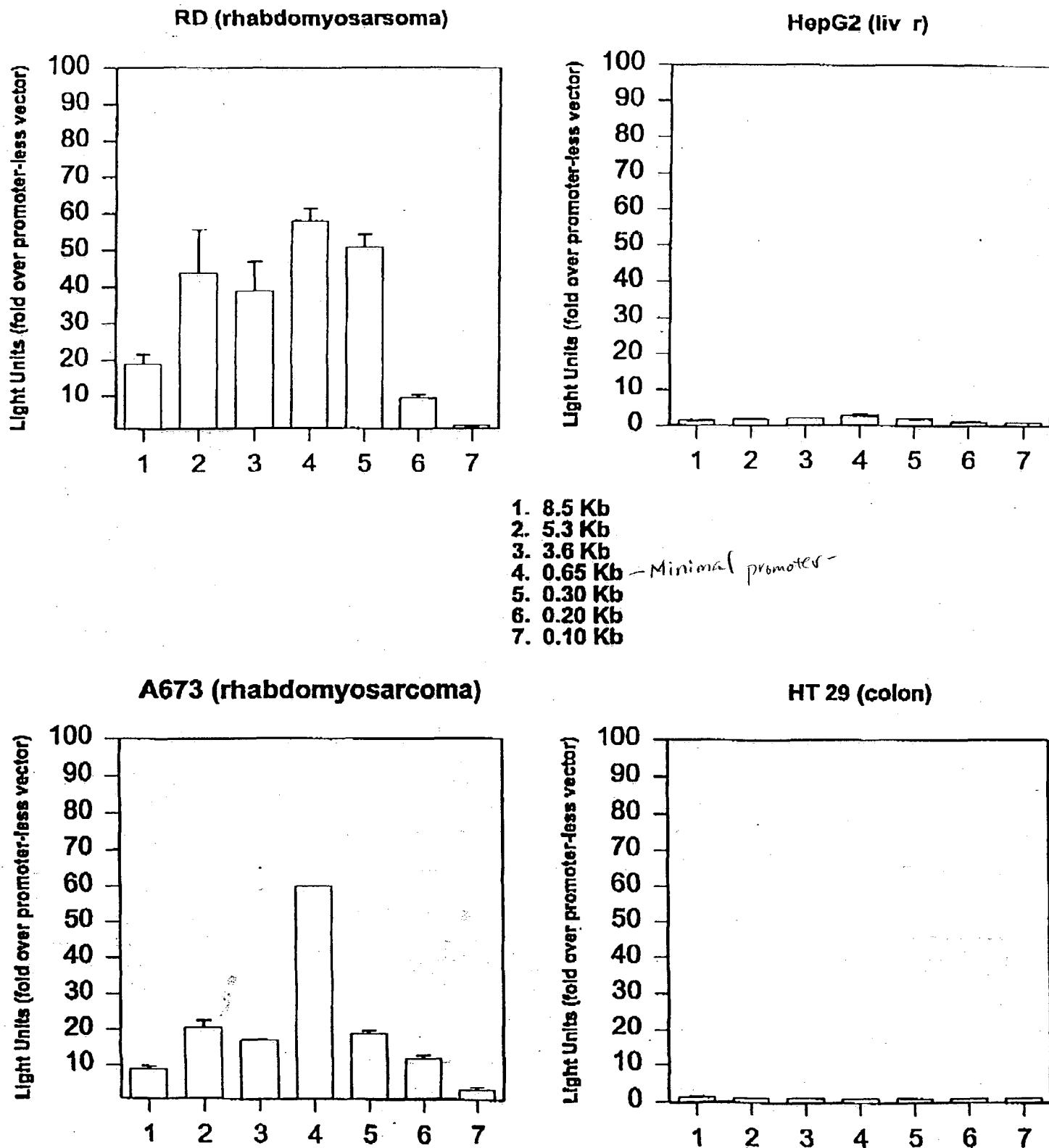


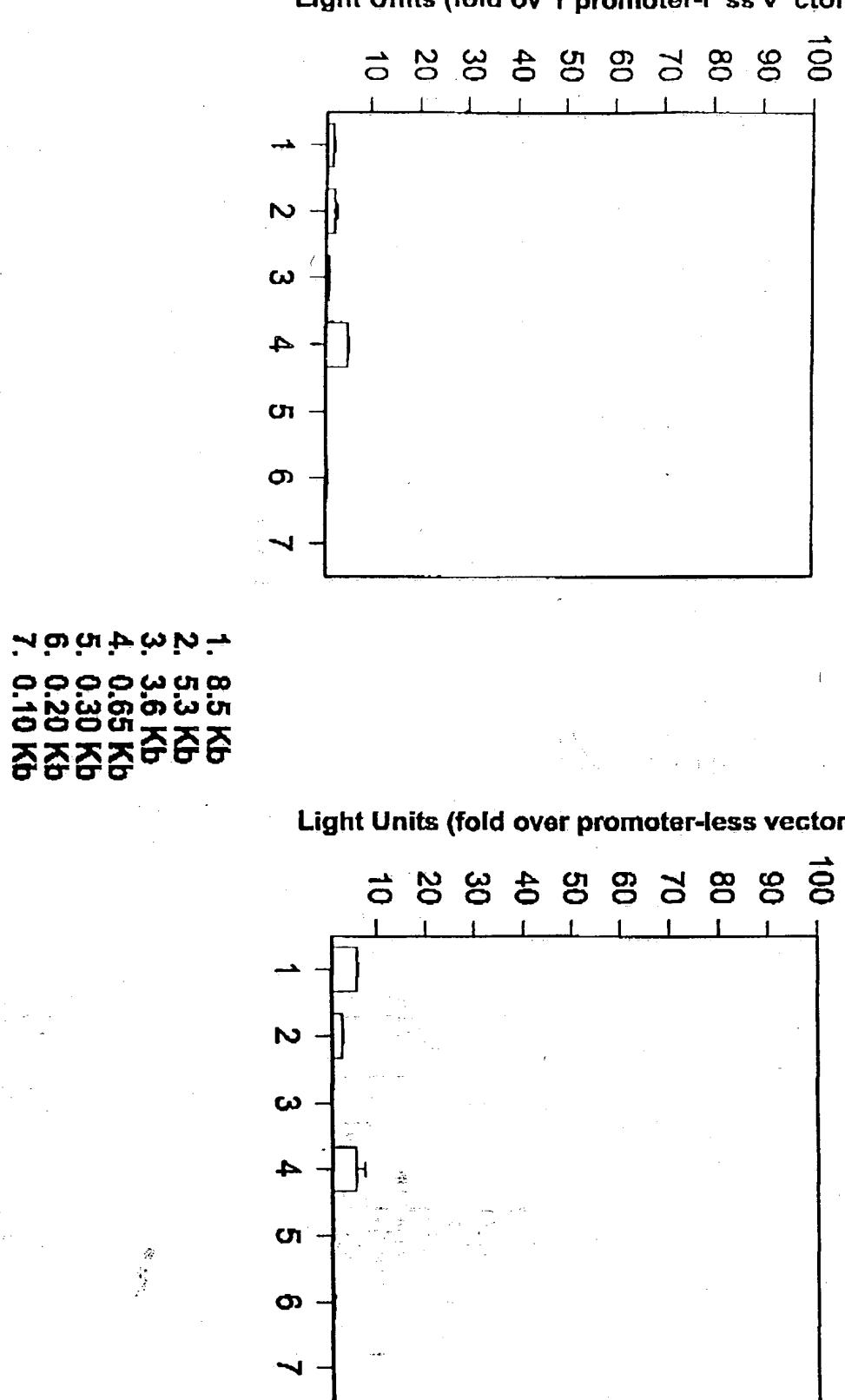
Figure 1A



App No.: Not Yet Assigned
 Inventor: Li-fang Liang
 Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
 AND USES THEREFOR

Docket No.: MTN-027DV1C

Figure 1B



App No.: Not Yet Assigned Docket No.: MTN-027DV1CN
Inventor: Li-fang Liang
Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
AND USES THEREFOR

ACTAGTATCA TAATCTTAAC TTTTAATTCA GGTCTTCCTA ATTTTATT
TGATCATAGT ATTAGAATTG AAAATTAAGT CCAGAAGGAT TAAAATAAAA

TCCTAATTAC TTGGCACTAA AAATAATTAA ATACAACAAA TAAAAATATT
AFFATTAATG AACCGTGATT TTTATTAAAT TATGTTGTTT ATTTTATAA

TTCTACTTCA AATACTTGCC TAAACAATAT AAAATCATT TAGTTTTGA
AAGATGAAGT TTATGAACGG ATTTGTTATA TTTTAGTAAA ATCAAAAAC
- 437

GGAAGTAATA TTTCATATT TAAATATGTA GTATAAATTAA AAATTGACTT
CCTTCATTAT AAAGTATAAA ATTTATACAT CATATTTAAT TTTAACTGAA

ATTAAATTAA CAATAAGAGT TGTGTGAGGA TTGTAAGAT TTAAGTACAG
TAAATTAAAT GTTATTCTCA ACACACTCCT AATCATTCTA AATTCACTGTC

TTTATATTAT TGCCAACATA GACTTTGTT TTTCAAATGT CACAAATATC
AAATATAATA ACGGTTGTAT CTGAAAACAA AAAGTTTACA GTGTTTATAG
- 310

TTTTATTATT TGTAGATTAA TTTCTTTAT GAAGTAGTCA AATGAATCAG
AAAATAATAA ACATCTAAAT AAAGAAAATA CTTCATCAGT TTACTTAGTC
- 286

CTCACCCCTTG ACTGTAACAA AATACTGCTT GGTGACTTGG GACAGACAGG
GAGTGGGAAC TGACATTGTT TTATGACGAA CCACTGAACC CTGTCTGTCC
- 246

- 207

TTTTAACCT CTGACAGCGA GATTCAATTGT GGAGCAAGAG CCAATCATAG
CAAAATTGGA GACTGTCGCT CTAAGTAACA CCTCGTTCTC GGTTAGTATC

ATCCTGACGA CACTTGTCTC ATCTAAGTTG GAATATAAAA AGCCACTTGG
TAGGACTGCT GTGAACAGAG TAGATTCAAC CTTATATTTC TCGGTGAACC

AATACAGTAT AAAAGATTCA CTGGTGTGGC AAGTTGTCTC TCAGACTGTA
TTATGTCATA TTTCTAAGT GACCACACCG TTCAACAGAG AGTCTGACAT
- 95

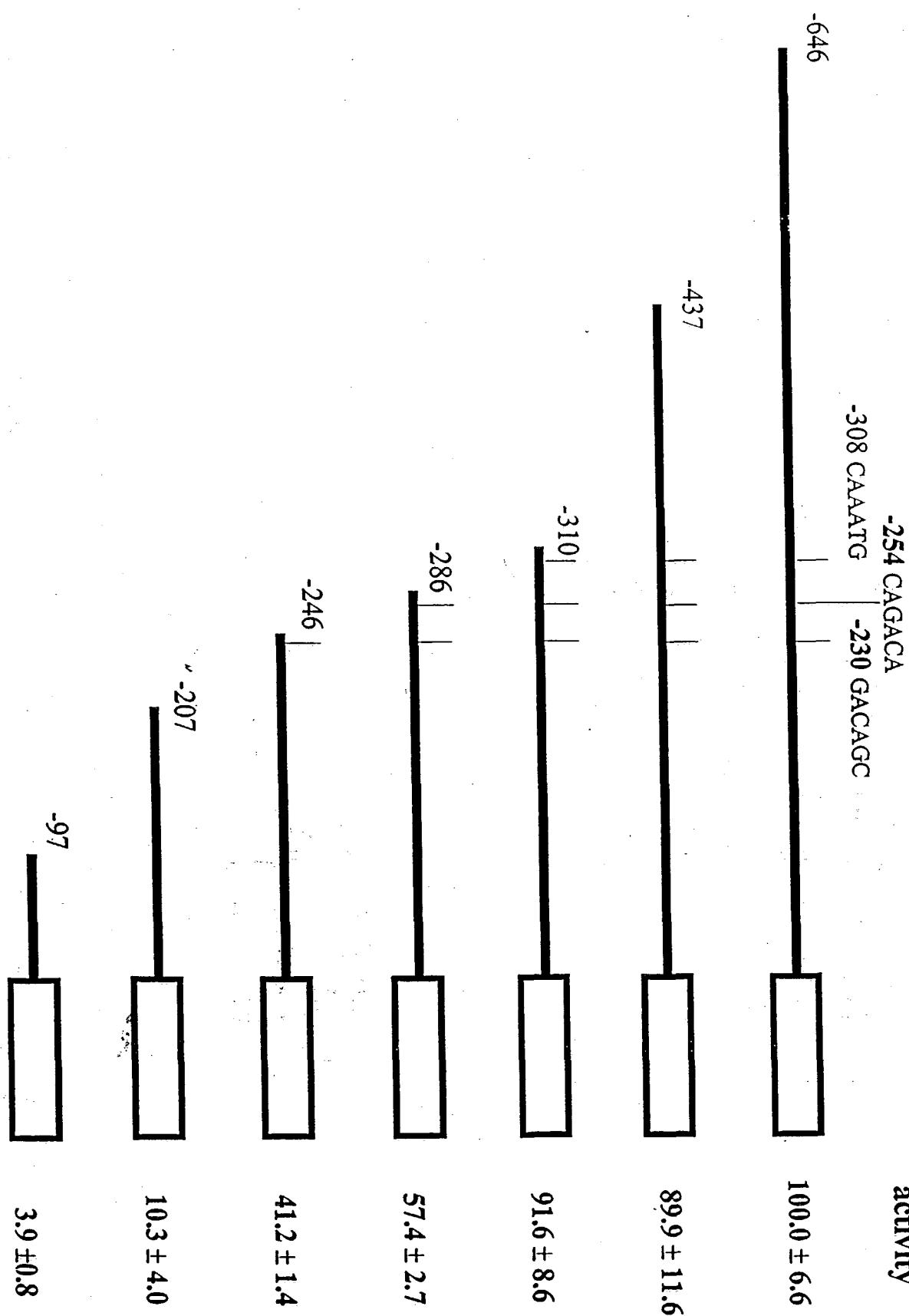
CATGCATTAAT AATTTGCTT GGCATTACTC AAAAGCAAAA GAAAAGTAAA
GTACGTAATT TTAAAACGAA CCGTAATGAG TTTTCGTTT CTTTCATTT
+ 1

AGGAAGAAC AAGAACAAAGA AAAAAGATTA TATTGATTT AAAATCATG
TCCTTCTTTG TTCTTGTCT TTTTCTAAT ATAACAAAA TTTTAGTAC

Figure 2

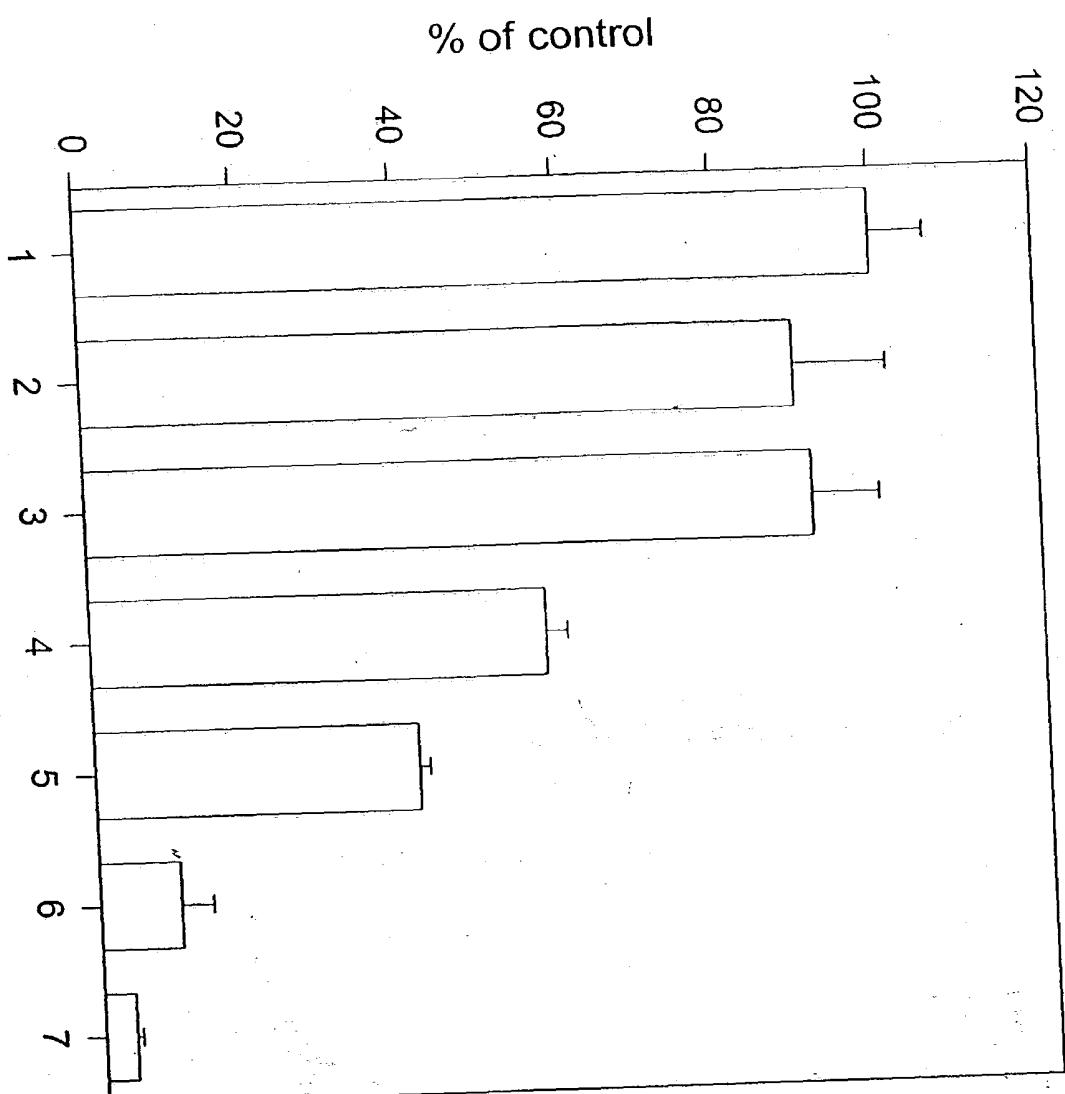
Figure 3A

Luciferase
activity



pGL3 Luciferase vectors in RD cells

Figure 3B



1. pGL3-0.65 (control)
2. pGL3-0.44
3. pGL3-0.31
4. pGL3-0.29
5. pGL3-0.25
6. pGL3-0.21
7. pGL3-0.10

Figure 4A

-254 CAGACCA
-308 CAAATG

-646

-230 GACAGC

Luciferase
activity

100 ± 6

-646

76 ± 9

-646

127 ± 24

-646

62 ± 9

-646

77 ± 13

-646

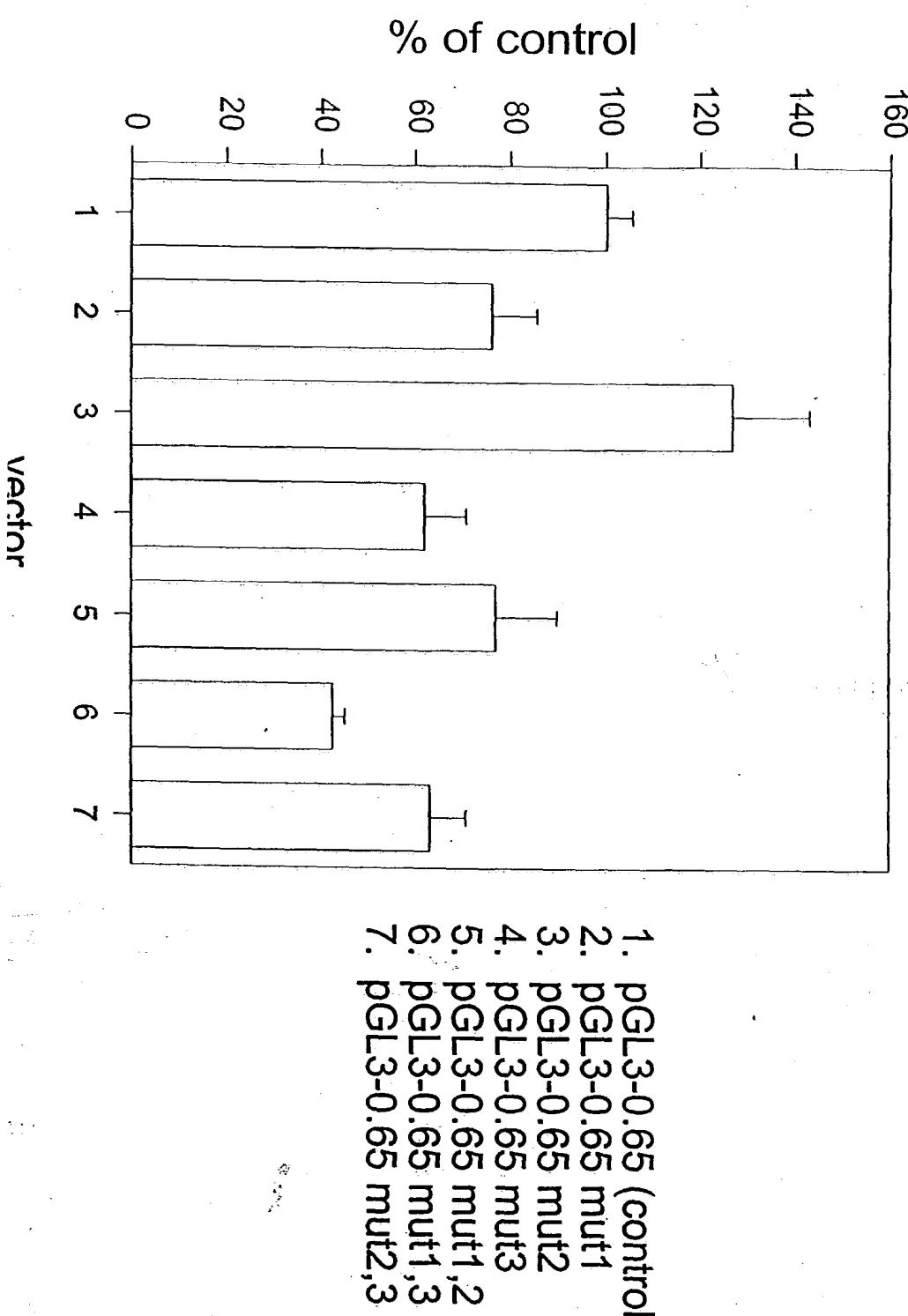
43 ± 3

-646

63 ± 8

Figure 4B

Composite graph of all the transfection data to date of RD cells transfected with various mutated GDF-8 reporter constructs



App No.: Not Yet Assigned
Inventor: Li-fang Liang
Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
AND USES THEREFOR

Docket No.: MTN-027DV1C

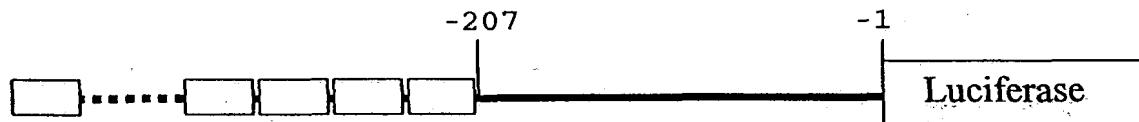
Figure 5A

Box 1 sequence (CAAATG)

GAGCTTCTTTATGAAGTAGT CAAATGAATCAGCTCACCTTG
AAAGAAAATACTTCATCAGTTACTTAGTCGAGTGGAACCTCG

Box 3 sequence (GACAGC)

GAGCGTTAACCTCT GACAGC GAGATTCAATTGTGGAGCAAGAG
CAAAATTGGAGACTGTCGCTCTAAGTAACACACCTCGTTCTCCTCG



App No.: Not Yet Assigned Docket No.: MTN-027DV1CN
Inventor: Li-fang Liang
Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
AND USES THEREFOR

Figure 5B

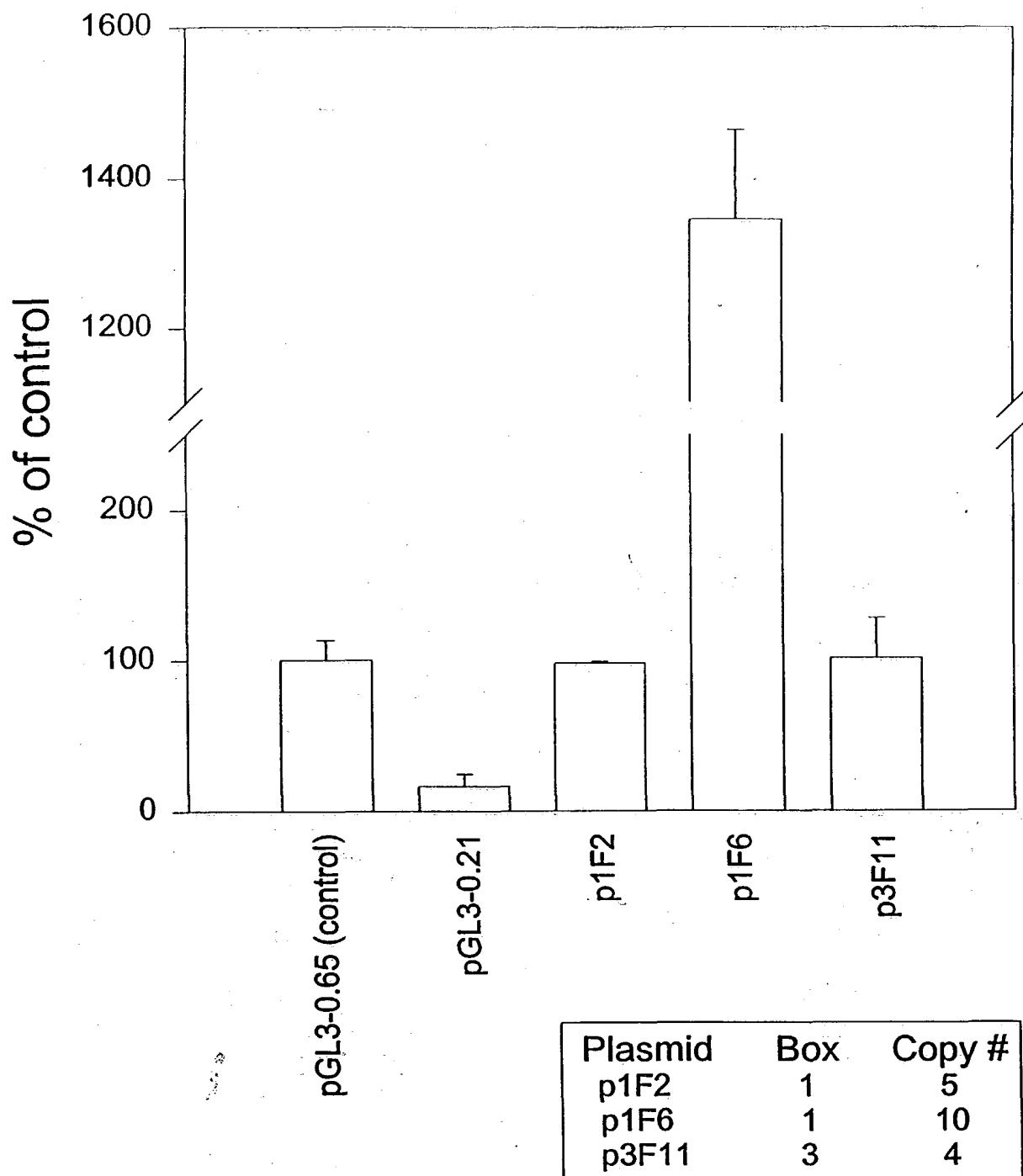
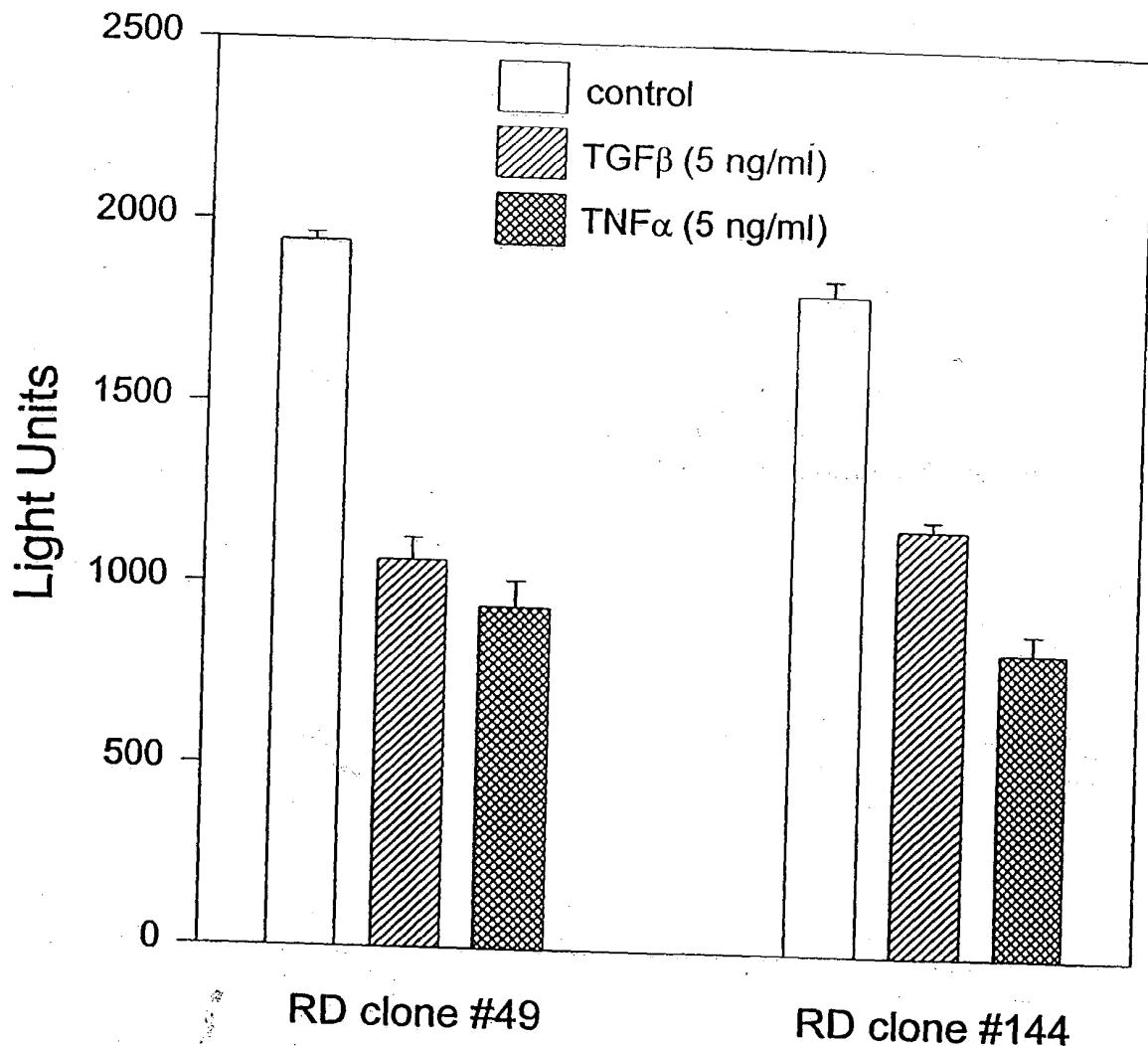


Figure 6



App No.: Not Yet Assigned Docket No.: MTN-027DV1CN
Inventor: Li-fang Liang
Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
AND USES THEREFOR

10 20 30 40 50 60
 GTACAGTTATATTAGTACACAGACTTCATTTATCAAATGTCACATATATCTTCATGA
 CATGTCAAATATAATCATGTGTCTGAAGTTAAATAGTTACAGTGTATATAGAAAGTACT

 70 80 90 100 110 120
 TTTGGGGATTATTCATTTATGAAGTAGTCAAATGAATCAGCTTGCCCTCGACTGTAAC
 AAACCCCTAAATAAAGTAAATACCTCATCAGTTACTTAGTCGAACGGGAGCTGACATTG

 130 140 150 160 170 180
 AAAATACTGCTTGGTGAATTGTGACAGACAGGGTTAACCTCTGACAGCGAGATTCAATT
 TTTTATGACGAACCACTGAACACTGTCTGCCAAAATTGGAGACTGTCGCTCTAAGTAA

 190 200 210 220 230 240
 GTGGAGCAGGAGCCAATCATAGATCCTGACGACACTTGTCTCCTCTAAGTTGGAATATAA
 CACCTCGTCCTCGGTTAGTATCTAGGACTGCTGTGAACAGAGGGAGATTCAACCTTATATT

 250 260 270 280 290 300
 AAAGCCACTTGAATACAGTATACAGGACTCCCTGGCGTGGCAGGTTGTCTCTCGGACGG
 TTTCGGTGAACCTTATGTCATATGTCCTGAGGGACCACCGTCCAACAGAGAGCCTGCC

 310 320 330 340 350 360
 TACATGCACTAATATTCACTTGGCATTACTCAAAAGAAAAAGAAGAAATAAGAACAAAG
 ATGTACGTGATTATAAAGTGAACCGTAATGAGTTTCGTTTTCTTCTTATTCTTGTTC

 370 380 390
 GGAAAAAAAAAGATTGTGCTGATTTTAAATGATG
 CCTTTTTCTAACACGACTAAAAATTACTAC

Figure 7A

App No.: Not Yet Assigned Docket No.: MTN-027DV1CR
 Inventor: Li-fang Liang
 Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
 AND USES THEREFOR

10 20 30 40 50 60
 TTCGGTATNTAATTGCTGCCAGGATTNGNTGACAAAGCCTACTGGNTTAANTTAAT
 AAGCCTANATTAAACGACGGGTCTAACNCACTGTTCCGTTGACCNAATTNAATTA

 70 80 90 100 110 120
 AGGGTCCACACTTCAGTAATGAATTGATANTAAAGGTCCAATAGTTAGCANTTATAG
 TCCCAGGTGTGAAGTCATTACTAAAACATNATTCCAGGGTTATCAATCGTNAATATC

 130 140 150 160 170 180
 TCACACGTGAACAAAATGTTATTCTGNTNACNTAGNACNTATCAGGA~~AA~~ACCTATCAT
 AGTGTGCACCTGTTTACAAATAAGNACNANTGNATCNGNATAGTCCTTTGGATAGTA

 190 200 210 220 230 240
 GATTTCTGAAATCTGAGCTGCTTAATGCACGTGAACGTGTTGAACAGCATGGATTCCCG
 CTAAAAGACTTAGACTCGACGAATTACGTGACACTTGACAATTGTCGTACCTAAGGAGC

 250 260 270 280 290 300
 TGTTGCAATGTATTATAATGTTTTCCCCCTCCTCCTAACAGAAATCCCTCAGAA
 ACAAACGTTACATAATATTACATAAAAAAGGGGAGGAGGATTGTCTTAGGGAGTCTT

 310 320 330 340 350 360
 TTTTCCTTGAGGTAGTACAAACTTTCAGCCACAATAGTGTAGAATCCTAAAGGAACCC
 AAAAGGAACCTCCATCATGTTGAAAGTCGGTGTATCACTATCTTAGGATTCCCTGGGA

 370 380 390 400 410 420
 AAAAGAGAGCTCTGCCTCAATTCACTAGTCCAACATGCGTTCACTGTATTTAAGAATG
 TTTCTCTCGAGACGGAGTTAAGTATCAGGTTGATACGCAAGTCACATATAAATTCTAC

 430 440 450 460 470 480
 ATAGTGCTGCTTCCAGCACTGCTGCCATAGTACTTGAAATATATCCTTCAGTATGT
 TATCACGACAGAACGGTGTGACGACGGGTATCATGAACCTTATATAGGAAAGTCATACA

 490 500 510 520 530 540
 GAAGACGTATCCTTACGAAGCCACCATATAAATCAGTTCACCCCTGGCTGTAACCAAAT
 CTTCTGCATAGGAAATGCTTCGGTGTATTTAGTCAAGTGGGAACCGACATTGGTTA

 550 560 570 580 590 600
 GCTGTCTAGTGACTTGTGATCGACAGGGCTTTAACCTCTGACAGCTAGATTCATTGTTGG
 CGACAGATCACTGAACACTAGCTGCTCCGAAATTGGAGACTGTCGATCTAAGTAACACC

 610 620 630 640 650 660
 GACAACAACCAATCGTCGGTTTGACGACATGAGCCTAATCAAAGTTGGAGTATAAACG
 CTGTTGTTGGTTAGCAGCCAAACTGCTGACTCGGATTAGTTCAACCTCATATTCG

 670 680 690 700 710 720
 CCCCTGGCATATAAGGCACACCAAGTGTGGCAAGCCGCTCTCTCAGATTGCATTGCTG
 GGGGAACCGTATATATTCCGTGTGGTCACACCGTTCCGCAGAGAGTCTAACGTAAACGAC

 730 740 750 760 770 780
 TCACGGATCTGTTAGAACTGAAAGAAAAGGGAAAGGGAGAGGGGGAAAAAGGGCAA
 AGTGCCTAGACAAATCTGACTTTCTTCCCTTCCCTCTCCCCCTTTTCCCGTT

790
 AAAGCTGCAGTGACTGTAA
 TTTCGACGTCACTGACATT

Figure 7B

App No. Not Yet Assigned	Docket No. MTN-027DV1CN
Inventor: Li-fang Liang	
Title: GROWTH DIFFERENTIATION FACTOR PROMOTER AND USES THEREFOR	

Figure 8

Human	GAAGCTAGTCAAAATGAAACGGTCAAGGCTTGACTGTAAAGAAAAATACTGCGTTGGCTG
Mouse	GAAGCTAGTCAAAATGAAACGGTCAAGGCTTGACTGTAAAGAAAAATACTGCGTTGGCTG
Pig	GAAGCTAGTCAAAATGAAACGGTCAAGGCTTGACTGTAAAGAAAAATACTGCGTTGGCTG
Chicken	GAAGCCACCATATAAAATGACTGACGGCTTGCTGAAACCTAAAGCTGTTGGCTG
Human	ACTTTGGCATACACAGCCCTTTAACCTCTGACACAGCGAGAATTGATTCCTGCACGAA
Mouse	ACTTTGGCATACACAGCCCTTTAACCTCTGACACAGCGAGAATTGATTCCTGCACGAA
Pig	ACTTTGGCATACACAGCCCTTTAACCTCTGACACAGCGAGAATTGATTCCTGCACGAA
Chicken	ACTTTGGCATACACAGCCCTTTAACCTCTGACACAGCGAGAATTGATTCCTGCACGAA
Human	CAGCCGAAATGATACTGAGGAGAGCTTGCTGATGTAAGTGGAAATATAA
Mouse	CAGCCGAAATGATACTGAGGAGAGCTTGCTGATGTAAGTGGAAATATAA
Pig	CAGCCGAAATGATACTGAGGAGAGCTTGCTGATGTAAGTGGAAATATAA
Chicken	CAACCAATCGTCGGTTTGAGGACATGAGCCATAATCAAAGTGGAGTATAA

App No.: Not Yet Assigned Docket No.: MTN-027DV1C
Inventor: Li-fang Liang
Title: GROWTH DIFFERENTIATION FACTOR PROMOTER
AND USES THEREFOR